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U. S. DEPARTMENT OF AGRICULTURE,
BUREAU OF ENTOMOLOGY

NEWS-LETTER
OF
THE
OFFICE OF CEREAL AND FORAGE INSECT
INVESTIGATIONS.

Volume I,
No. 3,
June 1,
1913.

June 1, 1913.

A distinguished visitor, Dr. Paul Marchal, Chief of the Entomological Station of Paris, France, recently spent considerable time in Washington and in the company of Doctor Howard called upon some of the field stations of this division. Everyone, and especially those who are investigating the development of parasitic Hymenoptera, know of the excellent work done by Doctor Marchal, who, besides being one of the best known entomologists of Europe, is a most pleasing gentleman.

Within the last year or two some fatal fungous diseases have broken out in the midst of white-grub ravages and myriads of the pests have died, evidently from the effects of some of these diseases. Dr. S. A. Forbes has had large quantities of these fungi propagated artificially, and it is expected that material will be sent to several assistants of this division, if this has not already been done, to be applied in the fields. Therefore the following suggestions relative to the experimental use of one of the most promising of these fungi may prove of service to members of the force who may have occasion to apply it in that way.

Method of Testing METARRHIZIUM ANISOPLIAE Against the White Grub.

As soon as corn is up make a strict search for a field of corn that is being injured by the grubs. Make certain of an abundance of grubs by actual examination as well as by the observed injury to the corn plants.

Each jar of fungous culture contains 100 pieces of inoculated potato and it is estimated that one piece of potato to a hill of corn is sufficient. In applying the fungus first thrust a trowel or sharp-pointed instrument into the soil among the corn plants in the hills infested with grubs. Push the trowel forward in order to make an opening, drop a piece of the potato from the culture jar into this opening, and remove the trowel. It is necessary to "plant" the piece of potato 2 inches below the surface. Where it is at all possible the treatment should be made in a field generally infested so as to have a check plot for comparison later.

It is essential that the fungus be applied as early in the season as possible after an infested field is located, for the grubs in most of the territory infested in 1912 will become inactive in June and pupate in July or August.

The treated field should be visited as often as practicable and examinations should be made to observe the action of the fungus. Careful notes should also be made on the weather conditions for the month following the application.

1919-1920

Mr. T. Scott Wilson, recently appointed from Kansas, has been assigned to the station at Tempe, Ariz.

Mr. Claud L. Scott of Oklahoma, appointed early in May, was assigned to the Brownsville, Tex., station, superseding Mr. E. G. Smyth, who resigned to go to Porto Rico.

Mr. H. T. Osborn, formerly with the Salt Lake City, Utah, Station, has recently resigned to accept a position with the Sugar Planters' Association in Hawaii. Every one who knows Mr. Osborn will wish him abundant success in his new position.

Mr. Monell has found considerable difficulty in mounting and determining specimens of Aphididae that have been preserved in formaldehyde. He has found that where a 5 per cent solution is used no trouble whatever is found in clearing up the specimens by soaking a short time in water. Therefore, when using formaldehyde for preserving it would be best to use about a 5 per cent solution.

In using lantern globes to cover potted plants in insectary and laboratory work, some difficulty has been experienced in devising means of removing the insects, notably parasites, without also removing the lantern globe. Mr. Kelly has overcome this by having tin bands about 3 inches long made with a groove to fit over the flange of the lantern globe and with a hole in the side for inserting a glass tube or vial. With the globe darkened and the top covered the only light is through the vial inserted in the tin band. The insects within the globe are thus attracted to the vial and can be removed without disturbing the globe. The device will be sent to any one who would like to try it in his work.

Among the new men who have been appointed to Cereal and Forage Investigations during May are Dr. J. M. Aldrich, recently of the University of Idaho, and author of the "Catalogue of North American Diptera." Doctor Aldrich will be engaged in studies of the development of Oscinidae and Agromyzidae.

Others who have been recently appointed are Mr. Donald J. Caffrey, recently of the Connecticut Agricultural Experiment Station; Mr. Guy E. Pitts of Oklahoma; Mr. W. F. Schlupp of Ohio; Mr. J. R. Sandige, Arizona; Mr. F. H. Gates, Colorado; and Mr. Irving Crawford, South Dakota; all assigned to the Range Caterpillar Investigations. Mr. Crawford was with the Wellington, Kans., station during the summer of 1912. Besides these, who are working under Mr. V. L. Wildermuth, Mr. Jos. S. Wade, of Kansas, has been assigned to the Wellington, Kans., laboratory; Mr. Geo. E. Quinter, of Washington, D. C., who has just finished his freshman year at the University of Pennsylvania, has been assigned to the Hagerstown, Md., laboratory.

It is sometimes difficult to find flowerpots that are entirely fitted for our use in out-of-door breeding work where these flower pots have to remain in the ground throughout the winter. Mr. Davis has been using pots furnished by the W. H. Elver-son-Pottery Co., New Brighton, Pa., and states that he has used them out of doors all winter, both above and below ground, filled with soil without a single one having been broken. They are no more costly than others but they are stronger and seem to bear more abuse than those of any make we have previously been able to secure.

Department of Agriculture,
Washington, D. C.

Office of Assistant Secretary.

NO. 16

April 28, 1913.

MEMORANDUM FOR THE SECRETARY
CONCERNING DEPARTMENTAL PUBLICATIONS IN SCIENTIFIC AND TECH-
NICAL JOURNALS

Dear Mr. Secretary:

For the last five or six years the appropriations for the work of the Department have grown rapidly, while the appropriations made for publishing results of investigations have grown slowly. As a result there is a great deal more material being accumulated which should be published than it is practicable to publish, owing to lack of funds and for other reasons. For the last ten or twelve years it has been the policy of the Department not to permit any of its technical work to be published outside, with the result that there has been considerable stagnation and some rather important results have been lost through lack of timely publication.

It is believed that by taking advantage of Existing specialized avenues of publication the usefulness of a considerable amount of scientific and technical work done by the Department would be increased and the financial strain, which is now a serious handicap to the Department, would be practically removed. It is the practice of many institutions, as you know, using public money, to permit publications of this kind in outside reputable journals, provided in all cases proper credit is given to the institution. I would therefore respectfully recommend that hereafter that reports of technical research, designed particularly for the attention of scientists in other institutions, be published in any scientific journal which is presumed to reach most satisfactorily those scientists. In no case, however, should the authors accept compensation for such articles. Manuscripts for scientific and technical journals should receive the

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approval of the Chief of the Bureau in which the paper originates, and should also be submitted to the Secretary's office before being forwarded for publication.

Very respectfully,
(Signed) B. T. Galloway,
Assistant Secretary.

Approved:

D. F. Houston
Secretary.

With outbreaks of grasshoppers in New Mexico and Idaho, of the true army worm in Virginia, and of MYOCHROUS DENTICOLLIS in Arkansas, the prospects are for a busy summer for entomologists.

One of the first surprises of the season has been the finding, by Messrs. Kelly and King, of a wireworm, CARDIOPHORUS sp.(?) in destructive abundance, by the latter about Charleston, Mo., and by the former at Tuckerman, Ark., and Pryor, Okla. At Tuckerman these larvae were found from 2 to 44 per hill of corn. Heretofore we have received but a single complaint of injury to corn from CARDIOPHORUS larvae and this came from North Carolina. Doctor Forbes, in his bulletin on corn insects, states that it had been received by him as such but once.

The following note will indicate the progress of the consignment of APHIDIUS TESTACEIPES mentioned in the May number of the News-Letter:

"I have to acknowledge the receipt of your letter of the 1st of May, and to inform you that the parasites were duly received and have been trans-shipped for East Africa. We have to thank you on behalf of the Government of the East Africa Protectorate for the trouble which you have taken in the matter."

(Signed) Crown Agents for the Colonies,
Whitehall Gardens,
London, S. W.

Department of Agriculture,
Washington, D. C.

Office of Assistant Secretary.

May 10, 1913.

MEMORANDUM NO. 19.
(Re Express Shipments of Government Property)

Attention of the various offices and bureaus of the Department is called to the attached copy* of a memorandum from the Solicitor in regard to the shipment of an instrument by the Weather Bureau to Tampa, Florida, which was lost en

route, and the inability of the Department to recover from the Express Company the value of the instrument in excess of \$50, on account of the fact that no value was declared at the time of shipment.

In view of this experience the following practice should obtain in the Department in connection with shipments of its property by express:

Where the value of the property is under fifty dollars, no value should be declared.

Where the actual value of the shipment is in excess of fifty dollars such value should be declared and the increased express charge paid by the Department.

(Signed) B. T. Galloway,
Assistant Secretary.

*Omitted here.

Under the provisions of the Act, the
Executive Council of the Territory is authorized
to acquire of the land of the United States
at a price of \$1.00 per acre.
In view of this, the Executive Council
of the Territory is authorized to acquire
property by purchase.
Where the value of the property is more than
\$1.00 per acre, the value should be ascertained.
Where the value of the property is less than
\$1.00 per acre, the value should be ascertained.
Where the value of the property is more than
\$1.00 per acre, the value should be ascertained.
Where the value of the property is less than
\$1.00 per acre, the value should be ascertained.

(Signed) E. J. Galloway,
Assistant Secretary.

*Quitted here.